

Message

From: Smith, Dennis/BOI [Dennis.Smith@jacobs.com]
Sent: 5/1/2018 8:21:31 PM
To: Archer, Allie [Archer.Allie@epa.gov]
Subject: RE: MT FWP
Attachments: UCFRB monitoring report 2016.pdf

Allie,

Per below, excerpts from the Fisheries Monitoring in the Upper Clark Fork River Basin 2016 Report, there were small wild fish that were analyzed for whole fish arsenic concentrations, but larger fish only had some organ tissues analyzed. None of the results are reported in the document as they were unavailable at the time of writing the report. Tissues of caged fish were analyzed for copper and zinc.

Mainstem wild fish tissue burdens

A subset of fish used for otolith collection were also had tissues extracted for metal burden analyses. Two fish per length category were selected for metal burden analyses. For fish in the smallest category (< 175 mm), whole fish were used for metals burdens. For fish > 175 mm, gills, liver, and stomachs were collected. Stomach contents were removed and tissues were rinsed with dionized water and frozen until analysis. Samples were dissolved using microwave digestion and analyzed for copper, zinc, arsenic, lead, and cadmium concentrations using inductively coupled plasma optical emission spectrometry (ICP-OES).

Fifty-three gills, 53 stomachs, and 60 livers from brown trout were submitted to the lab for determination of Cu, Zn, Cd, As, and Pb concentrations. At the time of writing this report, we are still awaiting these results.

Caged fish monitoring

A subset of fish samples collected alive was submitted to the Montana Department of Health and Human Services Environmental Laboratory in Helena for determination of whole-fish metal concentrations. Fish samples were blended to a powder to ensure homogeneity, and then the samples were weighed, dried, and reweighed to determine moisture content. The dried samples were then crushed and dissolved with nitric acid, diluted with deionized water, and analyzed for copper and zinc with ICP-OES using the U.S. Environmental Protection Agency (USEPA) Method 200.7 (USEPA 2001). All results were reported as µg/g dry weight.

We are requesting the analytical data for fish tissue metal analyses.

Let me know if this isn't clear.

Thanks

Dennis

From: Archer, Allie [mailto:Archer.Allie@epa.gov]
Sent: Tuesday, May 01, 2018 2:04 PM
To: Smith, Dennis/BOI <Dennis.Smith@ch2m.com>
Subject: [EXTERNAL] MT FWP

Hi Dennis,

I just wanted to make I understood the request for FWP – the 2016 Fisheries Monitoring in the Upper Clark Fork River Basin document and the associated dataset is what we would like to see?

Thanks!

Allie Archer
Remedial Project Manager
EPA - Montana
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